

Subject	Year 9 Threshold Concepts – Spring Term	How to support students' learning
Mathematics	<p><b><u>Equations and Inequalities</u></b></p> <ul style="list-style-type: none"> <li>• Use real life formulae</li> <li>• Rearrange formulae</li> <li>• Solve linear simultaneous equations</li> <li>• Represent inequalities on a number line</li> <li>• Solve inequalities</li> </ul> <p><b><u>Angles</u></b></p> <ul style="list-style-type: none"> <li>• Use basic angle rules to solve problems</li> <li>• Learn rules for angles and parallel lines</li> </ul> <p><b><u>Trigonometry</u></b></p> <ul style="list-style-type: none"> <li>• Understand and use Pythagoras' Theorem</li> <li>• Use trigonometry in right angles triangles</li> <li>• Learn exact values for special angles</li> </ul> <p><b><u>Straight line graphs</u></b></p> <ul style="list-style-type: none"> <li>• Solve simple coordinate problems</li> <li>• Plot straight line graphs</li> <li>• Find gradients and intercepts</li> <li>• Find equations of straight lines</li> <li>• Solve simultaneous equations graphically</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage your child to think about formulae that are used in life</li>   <li>• Encourage your child to look back at the work on angles from Year 8</li> <li>• Encourage them to give a reason when they calculate the size of an angle</li>   <li>• Encourage your child to learn Pythagoras' Theorem and discuss with them where it might be used</li> <li>• Encourage them to learn SOHCAHTOA and the exact values for special angles</li>   <li>• Encourage your child to complete graphs neatly and accurately</li> <li>• Encourage them to learn the equation of a straight line</li> </ul>
	<p><b><u>Statistics</u></b></p> <ul style="list-style-type: none"> <li>• Present data using bar charts, pie charts, frequency polygons, stem and leaf diagrams</li> <li>• Calculate averages and explain their advantages and disadvantages</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage your child to be accurate when drawing charts and diagrams</li> </ul>

	<ul style="list-style-type: none"><li>• Design questionnaires and describe methods of sampling</li></ul> <p><b><u>3D Shapes, Plans and Elevations</u></b></p> <ul style="list-style-type: none"><li>• Use the correct notation for labelling parts of shapes</li><li>• Draw and interpret plans and elevations</li><li>•</li></ul> <p><b><u>Probability</u></b></p> <ul style="list-style-type: none"><li>• Basic probabilities and expectation</li><li>• Listing outcomes and sample space diagrams</li><li>• Relative frequency</li><li>• Frequency trees</li><li>• Two way tables</li></ul>	<ul style="list-style-type: none"><li>• Discuss real-life uses of plans and elevations</li> <li>• Discuss examples of the use of probability</li></ul>
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